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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/767,383	01/22/2001	Martin Wahl	GR 00 P 1119	2399
24131	7590	04/07/2004	EXAMINER	
LERNER AND GREENBERG, PA P O BOX 2480 HOLLYWOOD, FL 33022-2480			CHOW, CHARLES CHIANG	
			ART UNIT	PAPER NUMBER
			2685	12

DATE MAILED: 04/07/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

## Office Action Summary

**Application No.**

09/767,383

**Applicant(s)**

WAHL, MARTIN

**Examiner**

Charles Chow

**Art Unit**

2685

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

### Status

- 1) ☒ Responsive to communication(s) filed on 1/28/2004.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

### Disposition of Claims

- 4) ☒ Claim(s) 1-6 and 8 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-6 and 8 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

### Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

### Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)  
Paper No(s)/Mail Date \_\_\_\_\_.
- 4) ☐ Interview Summary (PTO-413)  
Paper No(s)/Mail Date. \_\_\_\_\_.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: \_\_\_\_\_.

**Office Action for Amendment  
Received on 1/28/2004**

***Claim Rejections - 35 USC § 103***

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

1. Claims 1-6, 8 are rejected under 35 U.S.C. 103(a) as being unpatentable over Tamura et al. (US 4,709,404) in view of Satoh et al. (US 2002/0028,701 A1).

Regarding **claim 1**, Tamura et al. (Tamura) teaches a circuit configuration for controlling the transmitting power of a battery-operated transceiver; the control circuitry having battery voltage detector 9 for battery voltage V (abstract, Fig. 9-10, col. 4, line 25 to col. 5, line 11); the gain control circuit 700 (Fig. 10, abstract); the automatic gain control AGC of the power amplifier 4 for radio communication device (abstract; col. 1, lines 8-12; col. 1, lines 29-42); a battery for providing a supply voltage (Fig. 4, battery-V supplies power to power amplifier 200;

Tamura teaches a power stage (power amplifier 4) having controllable amplification of a radio frequency signal, having a gain; the AGC 500 for controlling of the gain of the power amplifier 4 (Fig. 4; col. 3, 28-32).

Tamura teaches a comparison device having an input side for receiving a reference signal and a signal coupled to the supply voltage, having an output side for supplying a difference signal, the comparator 19, for comparing the sampled voltage via resistor divider 11-12 to the non-inverting terminal of 19 and the sampled voltage from resistor divider 13-14 to the

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inverting terminal of differential comparator 19 (figure in cover page; col. 4, lines 25-53).

Tamura teaches the comparator 19 has output 27 for supplying the difference signal from the inverting/non-inverting terminals (figure in cover page).

Tamura teaches a control device 19, 24 for controlling the gain of the power stage (4) in dependence on the difference signal (the difference of battery voltage  $V$  and standard voltage  $V_2$  at terminal 10).

Tamura does not clearly teach a digitally operating functional unit supplied by the supply voltage, and functional unit generating a switching-off signal in dependence on the supply voltage for switching off the transceiver.

Satoh et al. (Satoh) teaches the battery voltage monitoring means 40, 50, the digital control unit 60 (Fig. 2) in a portable telephone for detecting battery voltage for falling below predetermined value (abstract, [0040-0041, 0043-0044], Fig. 5), and the switching-off disconnecting instruction signal from a digital control unit 60 for disconnecting the supply from the battery for stopping supply to digital control unit 60, with warning message displayed to user at first [0050, 0057-0058], the switch-off disconnecting instruction signal from a digital control unit 150 (Fig. 6) for stopping the supply to the radio unit 160 [0065].

Satoh teaches an efficient battery power supply control for reliably operating a communication device, portable telephone, to avoid malfunctioning due to low battery power, by shutting off the battery supply to the radio unit of the portable telephone.

Therefore, it would have been obvious to one of ordinary skill in the art at the time of invention to modify Tamura, and to include Satoh's disconnecting instruction signal from digital control unit for disconnecting battery supply voltage to radio transceiver unit, such

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that the communication device could be improved for operating reliably by shutting off the battery supply to the transceiver.

Regarding **claim 2**, Tamura teaches the control device including a logic element (diode 20, figure in cover page) for generating difference signal from constant reference voltage  $V_s$  and the output at terminal 27 (cathode of diode 20), for supplying output to terminal 28 at anode of diode 20 (figure in cover page) for controlling the gain of power amplifier 4, via differential comparator 26.

Regarding **claim 3**, Tamura teaches the voltage divider via resistors 11-12 (figure in cover page) connected to battery supply  $V$  and connected to the non-inverting input of the comparator 19 via resistor 17.

Regarding **claim 4**, Tamura teaches the measuring device 6/600 for measuring the power output from the power amplifier 4 (figure in cover page, Fig. 9-10). Tamura teaches the comparison device (26, Fig. 9, resistor 25) for coupling detected power for comparing the the signal from the logic element (diode 20), for gating signal from terminal 27 or gating signal from  $V_s$ , for controlling the power of the power amplifier 4.

Regarding **claim 5**, Tamura teaches the directional coupler 41, 42, (600 in Fig. 10) having detecting diode 40, and resistor 33 for connecting between coupling element 40 and an input of the comparator 35.

Regarding **claim 6**, in applicant's page 10, line 9, the coupling element 45 is performing the gate function. Tamura teaches the coupler 42 (Fig. 10) has a detecting diode 40 (Fig. 10) connected to the gate of the coupling element 42.

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Regarding **claim 8**, Tamura teaches the circuit configuration for controlling transmitting power of a battery operated radio communication apparatus. Tamura has shown the teachings for the providing a supply voltage, a power stage for controlling amplification of a radio signal having gain, a comparison device for receiving a reference signal, and a signal coupled to the battery supply voltage for outputting difference signal. Tsukada has shown above the teachings for the independence on the difference signal for controlling the gain of the said power stage, in a electronic device, radio or the like.

Tamura teaches a control device 19, 24 for controlling the gain of the power stage (4) in dependence on the difference signal (the difference of battery voltage  $V$  and standard voltage  $V_2$  at terminal 10).

Tamura does not clearly teach a mobile telephone, the digitally operating functional unit supplied by the supply voltage, and functional unit generating a switching-off signal in dependence on the supply voltage for switching off the transceiver.

Satoh et al. (Satoh) teaches the mobile portable telephone 10 (Fig. 1, [0038]), the battery voltage monitoring means 40, 50, the digital control unit 60 (Fig. 2) in a portable telephone for detecting battery voltage for falling below predetermined value (abstract, [0040-0041, 0043-0044], Fig. 5), and the switching-off disconnecting instruction signal from a digital control unit 60 for disconnecting the supply from the battery for stopping supply to digital control unit 60, with warning message displayed to user at first [0050, 0057-0058], the switch-off disconnecting instruction signal from a digital control unit 150 (Fig. 6) for stopping the supply to the radio unit 160 [0065]. Satoh teaches an efficient battery power supply control for reliably operating a communication device, portable telephone, to avoid

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malfunctioning due to low battery power, by shutting off the battery supply to the radio unit of the portable telephone. Therefore, it would have been obvious to one of ordinary skill in the art at the time of invention to modify Tamura, and to include Satoh's disconnecting instruction signal from digital control unit for disconnecting battery supply voltage to radio transceiver unit, such that the communication device could be improved for operating reliably by shutting off the battery supply to the transceiver.

***Response to Argument***

3. Applicant's arguments with respect to claims 1-6, 8 have been considered but are moot in view of the new ground(s) of rejection.

Regarding applicant's amendment for the no teachings for the digitally operating functional unit supplied by the supply voltage, and functional unit generating a switching-off signal in dependence on the supply voltage for switching off the transceiver, the ground of rejection has been changed by replacing Tsukada-'467 with Satoh et al. (US 2002/0028,701 A1).

Satoh teaches the battery voltage monitoring means 40, 50, the digital control unit 60 (Fig. 2) in a portable telephone 10 for detecting battery voltage for falling below predetermined value (abstract, [0040-0041, 0043-0044], Fig. 5), and the switching-off disconnecting instruction signal from a digital control unit 60 for disconnecting the supply from the battery for stopping supply to digital control unit 60, with warning message displayed to user at first [0050, 0057-0058], the switch-off disconnecting instruction signal from a digital control unit 150 (Fig. 6) for stopping the supply to the radio transceiver unit 160 [0065]. Satoh the battery power supply can be shut off to the radio transceiver unit 160, the battery power supply to the control unit 60 can be shut off.

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In view of cited references, claims 1-6, 8 are remaining in the rejection manner.

***Conclusion***

4. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Charles Chow whose telephone number is (703)-306-5615.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Edward Urban, can be reached at (703)-305-4385.

Any response to this action should be mailed to:

Commissioner of Patents and Trademarks

Washington, D.C. 20231

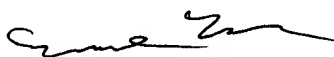
or faxed to: (703) 872-9306 (for Technology Center 2600 only).

Hand-delivered responses should be brought to Crystal Park II, 2121 Crystal Drive, Arlington, VA, Sixth Floor (Receptionist).

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the Technology Center 2600 Customer Service Office whose telephone number is (703) 306-0377.

Charles Chow C.C.

March 19, 2004.

  
EDWARD F. URBAN  
SUPERVISORY PATENT EXAMINER  
TECHNOLOGY CENTER 2600